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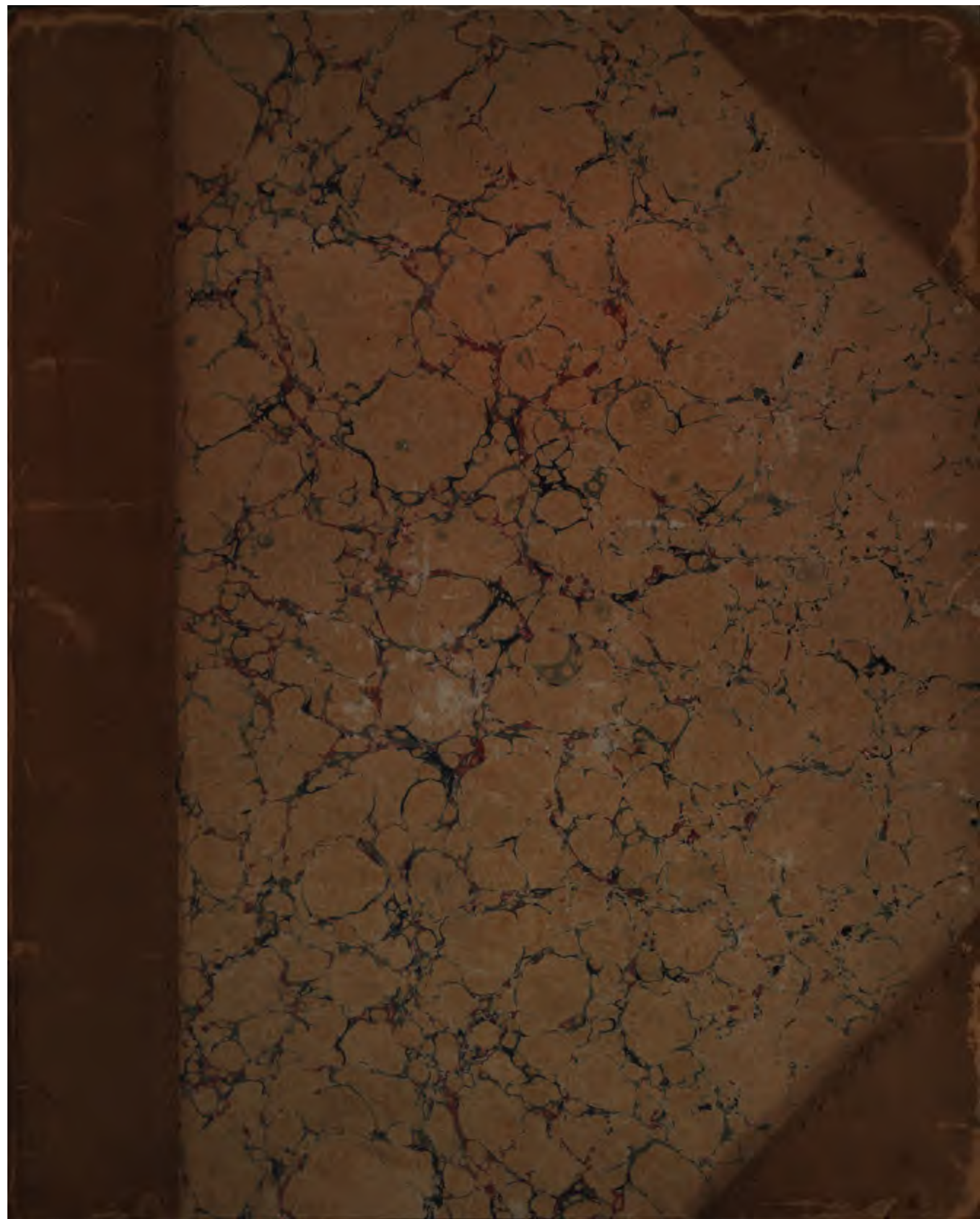
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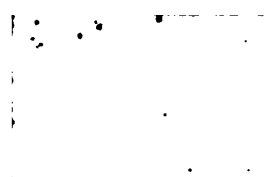


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HISTORY
OF
JAMES MITCHELL,
A BOY BORN BLIND AND DEAF,

WITH AN
ACCOUNT OF THE OPERATION
PERFORMED FOR THE RECOVERY OF HIS SIGHT.

BY
JAMES WARDROP, F. R. S. EDIN.

LONDON:

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1813.

TO
DUGALD STEWART, ESQ.

&c. &c. &c.

Dear Sir,

The great interest you have taken, and the exertions you continue to make for the welfare of the unfortunate Youth whose History is now presented to the Public, will, I trust, be deemed a sufficient apology for the liberty I take in thus prefixing your Name.

The Memoir, when presented to you in manuscript having met with your approbation, I am induced to publish it in its original form. As your valuable Account of the Boy has been circulated only among your friends; and as there are some facts connected with the Operation, and

its immediate effects, which you have purposely omitted, I hope this Publication will not be deemed superfluous, and that it may, in some degree, promote the objects of your benevolent exertions.

With every sentiment of respect,

I remain,

Dear Sir,

your much obliged and

obedient servant,

JAMES WARDROP.

*Charles-street, St. James's-square,
December, 1812.*

THE
HISTORY, &c.

THE following history of a Boy, born Blind and Deaf, affords a most interesting, though lamentable, example of a defect in the organization of the human frame, which, as far as I know, has not yet been described; and lays open a field of curious and valuable philosophical investigation, which has not hitherto been much explored.

The boy, when brought to London, and put under my care, had passed the fourteenth year of his age. He was accompanied by his father,

a respectable clergyman in the north of Scotland, and by his sister; from whom, and from the observations I was enabled to make, the subsequent history has been collected.

He had the usual appearances of strength and good health, and his countenance was extremely pleasing, and indicated a considerable deal of intelligence.

On examining the state of his eyes, the pupil of each was observed to be obscured by a Cataract.

In the right eye the cataract was of a white colour and pearly lustre, and appeared to pervade the whole of the crystalline lens. The pupil, however, readily dilated or contracted, according to the different degrees of light to which it was exposed. The cataract in the left eye was not equally opaque; about one-third of it being dim and clouded, arising, as it appeared, from very

thin dusky webs crossing it in various directions, the rest being of an opake white colour. The pupil of this eye did not, however, seem so susceptible of impressions from varieties in the intensity of light, as that of the other eye, nor did he employ this eye, so often as the other, to gratify his fondness for light.

I could discover no defect in the organization of his Ears.

Soon after his birth, his parents observed the cataracts in both eyes, and they also discovered, at a very early age, that he was Deaf, as no sounds appeared to excite his attention, and no noise seemed to awake him during sleep.

About the time of life when he was attempting to walk, he began to be attracted by bright and dazzling colours, and to derive pleasure from striking his teeth with sonorous bodies. He also appeared anxious to smell and feel those

substances which had become known to him through the medium of his other senses.

As he advanced in years, various circumstances concurred to prove, that neither the retina nor the auditory nerve were entirely insensible to the impressions of light and sound; and that, though he derived little information from these organs, he received from them a considerable degree of gratification.

He used to hold between his eye and luminous objects, such bodies as he had found to increase the quantity of light; and it was one of his chief amusements to concentrate the sun's rays, by means of pieces of glass, transparent pebbles, or similar substances which he held between his eye and the light, and turned about in various directions. There were other modes by which he was often in the habit of gratifying his desire of light. He would go to any out-house or room

within his reach, shut the windows and doors, and remain there for a considerable time, with his eyes fixed on some small hole or chink which admitted the sun's rays, eagerly catching them. He would also, during the winter nights, frequently retire to a corner of a dark room, and kindle a light for his amusement. Such, indeed, seemed to be the degree of pleasure, which he received from feasting his eyes with light, that he would often occupy himself, in this manner, for several hours, without interruption. In this, as well as in the gratification of the other senses, his countenance and gestures displayed a most interesting avidity and curiosity.

It was difficult, if not impossible, to ascertain with precision, the degree of Sight which he enjoyed; but from the preternatural acuteness which his senses of Touch and Smell had acquired, in consequence of having been habitually

employed to collect that information for which the Sight is peculiarly adapted ; it may be with confidence presumed, that he derived little, if any, assistance from his eyes, as organs of vision. Besides, the appearances of the disease in the eyes were such, as to render it extremely probable, that they enabled him merely to distinguish some colours and differences in the intensity of light.

The organs of Hearing seemed equally unfit for receiving the impressions of ordinary sounds, as his eyes were those of objects of sight.

Many circumstances, at the same time, seemed to prove, that he was not altogether insensible to *sound*. It has been already observed, that he often amused himself by striking hard substances against his teeth, from which he appeared to derive as much gratification, as he did from receiving the impression of light on

his eyes. In his childhood, one of the most remarkable circumstances relating to him, was this eager desire to strike any hard substance against his teeth. He was particularly gratified when it was a key, or any instrument which produced a sharp sound; and he struck it always upon his front teeth. When a ring of keys was given to him, he seized them with great avidity, and tried each separately by suspending it loosely between two of his fingers, so as to allow it to vibrate freely; and after tingling them amongst his teeth, in this manner, he generally selected one from the others, the sound of which seemed to please him most. This, indeed, was one of his most favourite amusements, and it was surprising how long it would arrest his attention, and with what eagerness he would, on all occasions, renew it. A gentleman observing this circumstance, brought to him a musical snuff-

box (a French trinket containing a small musical instrument, which played airs by means of a spring), and placed it between his teeth. This seemed not only to excite his wonder, but to afford him exquisite delight; and his father and sister, who were present, remarked, that they had never seen him so much interested on any former occasion. Whilst the instrument continued to play, he kept it closely between his teeth, and even when the notes were ended, he continued to hold the box to his mouth, and to examine it minutely with his fingers, his lips, and the point of his tongue, expressing, by his gestures and by his countenance, extreme curiosity.

Besides the musical snuff-box, I procured for him a common *musical key*. When it was first applied to his tooth, he exhibited expressions of fear mixed with surprise. However, he soon perceived that it was attended with no harm,

so that he not only allowed it to be renewed, but he soon acquired the habit of striking it on his own hand, so as to make it sound, and then touching his teeth with it. One day his father observed him place it upon the external ear. He has also, on some occasions, been observed to take notice of, and to appear uneasy with very loud sounds. Though, therefore, the teeth, besides being organs of mastication, and also serving as organs of touch in examining the food in the mouth, so that the hard and indigestible part may be rejected, in this boy they seemed to be the best channel of communicating sound to the auditory nerve.

His organs of Touch, of Smell, and of Taste had all acquired a preternatural degree of acuteness, and appeared to have supplied, in an astonishing manner, the deficiencies in the senses of Seeing and Hearing. By those of Touch, and

Smell in particular, he was in the habit of examining every thing within his reach. Large objects, such as the furniture of a room, he felt over with his fingers, whilst those which were more minute, and which excited more of his interest, he applied to his teeth, or touched with the point of his tongue. In exercising the sense of Touch, it was interesting to notice the delicate and precise manner by which he applied the extremities of his fingers, and with what ease and flexibility he would insinuate the point of his tongue into all the inequalities of the body under his examination.

But there were many substances which he not only touched, but smelled during his examination.

To the sense of Smell, he seemed chiefly indebted for his knowledge of different persons. He appeared to know his relations and intimate friends, by smelling them very slightly, and he

at once detected strangers. It was difficult, however, to ascertain at what distance he could distinguish people by this sense; but, from what I was able to observe, he appeared to be able to do so at a considerable distance from the object. This was particularly striking when a person entered the room, as he seemed to be aware of this before he could derive information from any other sense, than that of smell.*

* Perhaps he might have been informed of the approach of a person by the vibration of the floor of the room being communicated to his organs of Touch.

“Quand les enfans Luco (M. Desmortiers observes) ne regardent pas leur mère elle a beau les appeller; ils ne l'entendent point; mais si elle frotte le pied sur le carreau, ils sentent ce mouvement et se tournent aussitôt vers elle. Le bruit de canon, des tambours, des voitures, des chevaux, *le mouvement même d'un homme* qui marche derrière eux, se fait quelquefois sentir aux poignets, mais le plus souvent à l'estomach ou plutôt au centre nerveux du diaphragme. C'est une chose merveilleuse que la sensibilité de cette partie dans les Sourds-Muets, celle de pieds, et en général de tout le corps, aux impressions du bruit et du mouvement. Elle les avertit dans bien des circonstances où des oreilles déli-

In selecting his food, he was always guided by his sense of smell; for he never took any thing into his mouth, without previously smelling it attentively.

His Taste was extremely delicate, and he shewed a great predilection for some kinds of food, whilst there were others of which he never partook. He had on no occasion tasted butter, cheese, or any of the pulpy fruits; but he was fond of milk, plain dressed animal food, apples, peas, and other simple nutriment. He never took food from any one, but his parents or sister.

But the imperfections which have been noticed in his organs of sight and of hearing, were by no means accompanied with such defects in the *powers of his mind*, as might be suspected. He seemed to possess the faculties of the under-

cates ne disent rien." See *Mémoire sur les Sourdes-Muets de Naissance*, par le Bouvyer Desmortiers. Paris, An. viii.

standing in a considerable degree, and when we reflect that his channels of communication with the external world must have afforded very slow means of acquiring information, it is rather surprising how much knowledge he had obtained.

Impressions transmitted to the human soul through the medium of *one* sense might call into being some of the most important operations of intellect. Facts have been given to prove, that this boy possessed both recollection and judgment. We are ignorant of the qualities of bodies which influenced his determinations and his affections. On all occasions, however, it was clear, that he made his experiments on the objects which he examined, with all the accuracy and caution that his circumscribed means of gaining intelligence could admit. The senses he enjoyed being thus disciplined, acquired a preternatural degree of acuteness,

and must have furnished him with information respecting the qualities of many bodies, which we either overlook, or are in the habit of obtaining through other channels.

Perhaps the most striking feature of the Boy's mind, was his avidity and curiosity to become acquainted with the different objects around him. When a person came into the room where he was, the moment he knew of his presence, he fearlessly went up to him, and touched him all over and smelled him with eagerness. He showed the same inquisitiveness, in becoming acquainted with every thing within the sphere of his observation, and was daily in the habit of exploring the objects around his father's abode. He had become familiar with all the most minute parts of the house and furniture, the out-houses, and several of the adjacent fields, and the various farming utensils.

He showed great partiality to some animals, particularly to horses, and nothing seemed to give him more delight than to be put on one of their backs. When his father went out to ride, he was always the first to watch his return; and it was astonishing how he became warned of this, from remarking a variety of little incidents. His father putting on his boots, and such like occurrences, were all accurately observed by the boy, and led him to conclude how his father was to be employed. In the remote situation where he resided, male visitors were most frequent, and therefore the first thing he generally did, was to examine whether or not the stranger wore boots; if he did, he immediately quitted him, went to the lobby, found out, and accurately examined his whip, then proceeded to the stable and handled his horse, with great care, and the utmost attention. It occasionally happened, that visitors

arrived in a carriage. He never failed to go to the place where the carriage stood, examined the whole of it with much anxiety, and amused himself with the elasticity of the springs.

The locks of doors attracted much of his notice, and he seemed to derive great pleasure from turning the keys.

He was very docile and obedient to his father and to his sister, who accompanied him to London, and reposed in them every confidence for his safety, and for the means of his subsistence.

It has been already noticed, that he never took food from any one, but the branches of his own family. I several times offered him an apple, of which I knew he was extremely fond, but he always refused it with signs of mistrust, though the same apple, afterwards given him by his sister, was accepted of greedily.

It was difficult to ascertain the manner in

which his mind was guided in the judgment he formed of strangers, as there were some people whom he never permitted to approach him, whilst others at once excited his interest and attention.

The opinions which he formed of individuals and the means he employed to study their character, were extremely interesting. In doing this, he appeared to be chiefly influenced by the impressions communicated to him by his sense of Smell. When a stranger approached him, he eagerly began to touch some part of his body, commonly taking hold of the arm, which he held near his nose, and after two or three strong inspirations, through the nostrils, he appeared to form a decided opinion regarding him. If this was favourable, he showed a disposition to become more intimate, examined more minutely his dress, and expressed by his counte-

nance more or less satisfaction: but if it happened to be unfavourable, he suddenly went off to a distance, with expressions of carelessness or of disgust.

When he was first brought to my house, to have his eyes examined, he both touched and smelled several parts of my body, and the following day, whenever he found me near him, he grasped my arm, then smelled it, and immediately recognized me; which he signified to his father, by touching his eye-lids with the fingers of both hands, and imitating the examination of his eyes, which I had formerly made. I was very much struck with his behaviour during this examination. He held his head, and allowed his eyes to be touched, with an apparent interest and anxiety, as if he had been aware of the object of my occupation. On expressing to his father my surprise, at the apparent consciousness

of the Boy of what was to be done, he said that he had frequently, during the voyage from Scotland, signified his expectation and his desire that some operation should be performed on his eyes. About two years before this period, he had been brought up to London by sea, with the hope of getting an attempt made to improve his sight and his hearing. The membrane of the tympanum, of both ears, was punctured by Mr. Astley Cooper, with no benefit; and several medical gentlemen examined his eyes, and endeavoured to perform some operations on them. In this, however, they completely failed, from the powerful resistance which he made to all their efforts to secure him, and hold the eye quiet. The lively remembrance, which he seemed to have, of these events, and the recurrence of the same circumstances attending his coming here at this time, made him very naturally conceive, that his parents

had again brought him from home, with the same view as formerly. During the first examination, and on several future ones, when I purposely handled the eye roughly, I was surprised to find him submit to every thing that was done with fortitude, and complete resignation; as if he was persuaded that he had an organ imperfectly developed, and an imperfection to be remedied by the assistance of his fellow-creatures.

Many little incidents in his life have displayed a good deal of reasoning and observation. On one occasion, a pair of shoes were given to him, which he found too small, and his mother put them aside into a closet. Some time afterwards, young Mitchell found means to get the key of the closet, opened the door, and taking out the shoes, put them on a young man, his attendant, whom they fitted exactly.

On another occasion, finding his sister's shoes

very wet, he appeared uneasy until she changed them.

From his father having had farm servants, he attempted to imitate them in some of their employments, and was particularly fond of assisting them in cleaning the stable.

At one time, when his brothers were employed making basket-work, he attempted to imitate them; but he did not seem to have patience to overcome the difficulties he had to surmount.

In many of his actions, he displayed a retentive memory, and in no one was this more remarkable, than on his second voyage to London. Indeed, as the objects of his attention must have been very limited, it is not to be wondered at, that those few should be well remembered.

He seemed to select and show a preference to particular *forms*, *smells*, and other *qualities* of bodies. He has often been observed to break

substances with his teeth, or by other means, so as to give them a form which seemed to please him. He also preferred to touch those substances which were smooth, and which had a rounded form; and he has been known to employ many hours in selecting from the channel of a river, which was near his father's house, small stones of a rounded shape, nearly of the same weight, and having smooth surfaces. These too he would arrange in a circular form on the bank of the river, and place himself in the centre of the circle. He also seemed to be much pleased with some Smells, and equally disgusted with others, and this latter he expressed by squeezing his nostrils, and turning his head from whence the smell came. He showed an equal nicety in the selection of his food.

He sometimes showed a good deal of *drollery* and *cunning*, particularly in his amusements with

his constant companion and friend, his sister. He took great pleasure in locking people up in a room or closet, and would sometimes conceal things about his person, or otherwise, which he knew not to be his own property; and when he was detected doing so, he would laugh heartily

That he was endowed with affection and kindness to his own family cannot be doubted. The meeting with his mother, after his return from London (to be afterwards noticed) showed this very strongly. On one occasion, finding his mother unwell, he was observed to weep; and on another, when his attendant happened to have a sore foot, he went up to a garret room to find a particular stool for his foot to rest upon, which he himself had made use of, on a similar occasion, long before. He seemed fond too of young children, and was often in the habit of taking them up in his arms.

His disposition and temper were generally placid, and when kind means were employed, he was obedient and docile. But if he was teased or interrupted in any of his amusements, he became irascible and sometimes got into violent paroxysms of rage. At no other time did he ever make use of his voice, with which he produced most harsh and loud screams.

It is not one of the least curious parts of his history, that he seemed to have *a love of finery*. He early showed a great partiality to new clothes, and when the tailor used to come to make clothes at his father's house (a practice common in that part of the country), it seemed to afford him great pleasure to sit down beside him whilst he was at work, and he never left him until his own suit was finished. He expressed much disappointment and anger, when any of his brothers got new clothes, and none were given to him.

Immediately before he came to London, each of his brothers got a new hat, his father considering his old one good enough for the sea voyage. Such, however, was his disappointment and rage, that he secretly went to one of the out-houses, and tore the old hat to pieces. Indeed, his fondness for new clothes afforded a means of rewarding him when he merited approbation, and his parents knew no mode more severe of punishing him than by obliging him to wear old ones.

With respect to the means which were employed to communicate to him information, and which he employed to communicate his desires and feelings to others, these were very ingenious and simple. His sister, under whose management he chiefly was, had contrived signs addressing his organs of Touch, by which she could controul him, and regulate his conduct. On the other hand he, by his gestures, could express

his wishes and desires. His sister employed various modes of holding his arm, and patting him on the head and shoulders, to express consent and different degrees of approbation. She signified *time* by shutting his eye-lids and putting down his head; which done once, meant one night. He expressed his wish to go to-bed by reclining his head, distinguished me by touching his eyes, and many workmen by imitating their different employments. When he wished for food he pointed to his mouth, or to the place where provisions were usually kept.

Operation.

IN the hope of restoring this Boy's sight, my attention was solely directed to the removal of the cataract of the right eye. Having thought it preferable *to extract* the lens of that eye, and conceiving this might be accomplished by having him properly secured, I placed him on a table in a room lighted from the roof: and having secured him with skilful assistants, I attempted to introduce the cornea knife; but the resistance which he made was such as to render it impracticable to use that instrument. He seemed to know that something was to be done to his eye, and he at first readily yielded, and allowed himself to be placed and held on the table. The uneasiness, however, which the pressure necessary to keep the eye-ball steady and the eye-lids

open, seemed to overcome his resolution, and his exertions became so violent that it was quite impossible to secure even his head.

A second attempt was made the day following, having previously taken more precautions in order to secure him; but so violent were his exertions and cries, and so irascible did he become, that all present were glad to relinquish their posts, and I was impressed with the conviction, that nothing but a powerful piece of machinery calculated to grasp every joint of his body, would be at all sufficient to enable any operation to be performed. Some days having elapsed without the hope of being able to get the operation performed, I at last thought of a machine which completely answered the wished-for purpose, and which I may describe, as on a future occasion, under similar circumstances, it may be found useful. It consisted of a kind of

box, long enough to contain all his body except the head. The sides were fixed on hinges, so that they might be folded in upon the body ; it had no top part, and the bottom was made long enough to reach sufficiently far beyond the sides at one extremity, so that a perpendicular plane of wood was fixed on it, in which there was a niche of such a size as accurately to contain the head. The machine being placed erect, and lined with a blanket, to prevent any risk of his being injured, he was easily secured in it by folding the sides on his body, and fixing them with circular ropes ; and in this manner, notwithstanding a most powerful resistance and many harassing screams, he was placed on a table and kept quite steady. I had now given up all hopes of extracting the cataract, and determined to try *couching*, an operation which, though not generally so successful, was preferable in this case, as

there was not so much danger of doing any essential injury to the eye, even if it did not succeed. Much difficulty was found in holding open the eye-lids, and keeping the globe of the eye steady; but this was ultimately accomplished by Mr. Ware, who was kind enough on this occasion to lend me his able assistance. As soon as the couching needle touched the eye he remained quite steady, and his dreadful screaming ceased. I made use of the needle recommended by Mr. Cheselden, and with its sharp edge cut through the anterior portion of the crystalline capsule, and with its point dragged the lens from the sphere of the pupil. On depressing the point of the needle the lens remained out of view, except a small portion of its inferior edge, so that I then withdrew the instrument. A small quantity of blood was effused in the anterior chamber. The operation being finished, he

was liberated from the machine in which he was fixed. He then expressed great satisfaction, gazed around him, and appeared as if he could distinguish objects. This, however, could not be ascertained in a manner quite satisfactory, as it would have been prejudicial to his recovery to make any experiments; but it might be perceived from the change in the expression of his countenance. The eye, accordingly, being bound up, he was carried home, and put to bed in a dark room; after which he was bled in the arm.

On the *second day* after the operation the eye was slightly inflamed. The bandage was continued, and he remained in the darkened room. He had been restless and impatient during the night, his skin dry and hot, and his pulse quicker than natural.

On the *third day* all febrile symptoms were gone, and he had slept well. His eye too appeared

less inflamed, though easily irritated by exposure to light.

On the *fourth day* I examined the eye accurately, and observed the state of his vision. I found that the crystalline lens had altered its situation since the operation, and could be again distinguished, covering about one fourth of the upper edge of the pupil. The other part of the pupil was quite transparent, and all the blood which had been effused into the anterior chamber during the operation was now absorbed. On making trial if he could distinguish any object, he readily discerned a book placed on the coverlet of the bed, and in many of his attempts to touch it seemed to judge pretty accurately of its distance.

On the *fifth day* he got out of bed, and was brought into a room having an equal and moderate light. Before either touching or seem-

to smell me he recognised me, which he expressed by the fear of something to be done to his eyes. He went about the room readily, and the appearance of his countenance was much altered, having acquired that look which indicated the enjoyment of vision. Indeed, before the operation he always walked with much freedom, and I had observed, that even on a very rugged and unequal road he did not stumble, or suffer in the least from jolting.

He appeared well acquainted with the furniture of the room, having lived in it several days previous to the operation; and though, from placing things before him, he evidently distinguished and attempted to touch them, judging of their distances with tolerable accuracy, yet he seemed to trust little to the information given by the eye, and always turned away his head, while he carefully examined by

his sense of Touch, the whole surfaces of the bodies presented to him.

On the *sixth day* he appeared stronger, amused himself a good deal with looking out at the window, and seemed to observe the carts and carriages which were passing in the street. On putting a shilling on the middle of a table he instantly touched it.

On the *seventh day* the inflammation was nearly gone, and he observed a piece of white paper of the size of half a sixpence put upon the table. I took him into the street, and he appeared much interested in the busy scene around him, though at times he seemed frightened. A post supporting a scaffold at the distance of two or three yards chiefly attracted his notice, and he timorously approached it, groping, and stretching out his hand cautiously until he touched it.

He was at this time removed from his lodging to an uncle's house, who being a taylor, had a room full of various coloured cloths, which afforded young Mitchell an unceasing source of pleasure and amusement.

He expressed a great desire for a suit of new clothes, and it was signified to him, that his wishes would be complied with; and being allowed to make a choice, he selected from among the variety of colours a light yellow for his breeches, and a green colour for his coat and waistcoat. Accordingly, these were made, and as I solicited his father not to allow them to be put on until I was present, it was signified to him, that he should have permission to wear them in two days. The mode by which he received this communication was by closing his eye-lids, and bending down his head twice, thereby expressing that he must first have two

sleeps. One day after the clothes were finished, I called, and requested that he should be dressed in them. This was intimated to him by his uncle, touching his coat, and giving him a ring of keys, one of which opened the door of the room where the clothes were kept. He gladly grasped the keys, and in an instant pitched on the one he wanted, opened the door, and brought a bundle containing his new suit into the room where his father, uncle, sister, another gentleman and myself were sitting. With a joyful smile he loosened the bundle, and took out of the coat-pocket a pair of new white stockings, a pair of yellow gloves, and a pair of new shoes. The succeeding scene was, perhaps, one of the most extraordinary displays of sensual gratification which can well be conceived. He began by first trying his new shoes after throwing away the old ones with great scorn, and then with a

smiling countenance went to his father and to his sister, holding up to each of them and to me his feet in succession, that we might admire his treasure.

He next put on the yellow gloves and in like manner shewing them to his father and sister, they expressed their admiration by patting him on the head and shoulders. He afterwards sat down opposite to a window, stretched out on each knee an expanded hand, and seemed to contemplate the beauty of his gloves with a degree of gratification scarcely to be imagined. At one time I attempted to deceive him, by putting a yellow glove, very little soiled, in place of one of his new ones. But this he instantly detected *as a trick*, and smiled, throwing away the old glove and demanding his new one. This occupation lasted a considerable time, after which he and his sister retired to another room, where

he was dressed completely in his new suit. The expression of his countenance, on returning into the room in his gaudy uniform excited universal laughter, and every means were taken to flatter his vanity and increase his delight !

Though the garments continued to occasion much delight, yet there were additional sources of enjoyment now laid open to him from his newly acquired powers of vision. One day I gave him a pair of green glasses to wear in order to lessen the influence of the bright sunshine on his eye, which remained still irritable. He looked through them at a number of objects in succession, and so great was his surprise, and so excessive his pleasure, that he burst into a loud fit of laughter. He continued to keep possession of the glasses, wearing which became one of his favourite amusements.

He, in general, seemed much pleased with

objects which were of a *white*, and still more particularly those of a *red* colour. I observed him one day take from his pocket a piece of red sealing-wax, which he appeared to have preserved for the beauty of its colour. A white waistcoat or white stockings pleased him exceedingly, and he always gave a marked preference to yellow gloves.

Young Mitchell left London towards the beginning of September, 1810, and returned home by sea. Soon after, I received from his father the following account of his son. "James seemed much amused with the shipping in the river, and until we passed Yarmouth Roads. During the rest of the passage we were so far out at sea that there was little to attract his notice, except the objects around him on deck. He appeared to feel no anxiety till we reached this coast, and observed land and a boat coming along side of the vessel to carry some of the passengers

on shore. He seemed then to express both anxiety and joy, and we had no sooner got into the river which led to the landing place than he observed, from the side of the boat, the sandy bottom, and was desirous to get out. When we got to land he appeared happy, and felt impatient to proceed homewards. On our arrival that evening, after a journey of seventeen or eighteen miles, he expressed great pleasure on meeting with his mother and the rest of the family. He made signs that his eye had been *operated* upon, that he also *saw* with it, and at the same time signified that he was fixed in a particular posture, alluding to the machine in which he had been secured during the operation. He has now learnt to feed himself, and to put on his own clothes. No particular object has yet attracted his attention in the way of amusement."

A considerable time elapsed before any further accounts of young Mitchell reached me. I then learnt that his sight, instead of improving, as I had been led to hope, was impaired, from the opake crystalline lens not having been absorbed, and again covering the pupil; an accident by no means unusual after *couching* the cataract.

Since that time, however, I have been informed that his sight has begun to improve, the fragments of the lens, and opake portion of its capsule are undergoing a gradual absorption, and enabling him to distinguish objects which are not very minute, and of a bright colour. From this sense therefore, he is not yet enabled to acquire much additional information, and it still seems only to afford him the enjoyment of feasting his eyes with light, and with various colours.

As he has advanced in life, his temper has become more irascible, he is less tractable ; and he has all the signs of puberty. No circumstance in his history seems to show that he has any notion of difference in sex.

The picture which I have attempted to delineate of this Boy's lamentable situation, whilst it must excite our sympathy, cannot fail at the same time to give rise to much philosophical speculation on one of the most interesting subjects which can engage the human understanding. It is a most wonderful and instructive experiment instituted by *Nature* herself to illustrate the progress of human intellect, to mark the influence of the different organs of perception in the developement of its various faculties ; thereby realizing what many philosophers have contemplated in imagination, but never before witnessed.

The Boy is now in Scotland, and Professor Dugald Stewart, to whom I have communicated every circumstance of his case, is taking a lively interest in procuring some suitable provision, which might enable the Boy to be placed where an attempt could be made to educate him, and perhaps also to improve his sight by another operation. If this plan be executed under the immediate care and management of Mr. Stewart, every thing will be done which can promote the happiness of this interesting youth, whilst science will reap the benefit of the observations of one of the most ingenious and most profound philosophers of the present day.

ACCOUNT OF A LADY WHO

Though it has been observed, that there is no example of a human being *born* deprived of the sense of Sight and Hearing, there is on record an account of a Lady, who, when considerably advanced in years, became Blind and Deaf, at the same time losing her organ of Voice. Whilst, therefore, young Mitchell's history affords an example of an individual deprived from his birth of two important avenues of perception, this lady shows in a very remarkable degree to what extent some of our organs of sense may be improved when others are extinguished at an advanced period of life. The sense of Touch, which in the blind man usually acquires such delicacy, in this lady became excessively acute, and her Smell attained a degree of perfection which has only been equalled in young Mitchell. As this lady's case acquires particular interest

when brought under review along with that of young Mitchell, I shall conclude this Memoir, by quoting some account of it.

This unfortunate young lady was seized with the confluent small-pox, by which she was deprived of her Hearing, her Sight and her Speech. "After this disease, she was seized with most violent convulsions, which affected her whole body, deprived her of speech, and produced such a stricture in her throat, as prevented her from swallowing any kind of aliment, either solid or liquid. Yet in this condition she continued near three quarters of a year, and during that time was supported in a very uncommon manner; by only chewing the food, which being turned often and kept long in her mouth, she was observed at last to spit out. Liquors were gargled about in her mouth for some time, and then returned in the same manner, no part of

them having passed the throat by an act of deglutition. They must, therefore, have either been absorbed by the proper vessels in the mouth, or trickled down, in a very small quantity, along the gullet into the stomach. But there were other peculiarities, in the case of this lady, still more extraordinary. During the privation of her Sight and Hearing, her Touch and Smell became so exquisite that she could distinguish the different *colours* of silk, and knew when any stranger was in the room with her. After she became Blind and Deaf and Dumb, it was not easy to contrive a method by which a question could be asked her and an answer received. This, however, was at last effected by talking with the fingers, at which she was uncommonly expert. But those that conversed with her in this manner were obliged to express themselves by touching her hand and fingers, instead of their own. A lady

who was nearly related to her, wearing an apron which was embroidered with silk of different colours, asked her, in the manner which has been described, if she could tell, what colour it was? and after applying her fingers attentively to the figures of the embroidery, she replied, that it was red and blue and green; which was true. The same lady having a pink-coloured riband on her head, and being desirous of still further satisfying her curiosity and her doubts, asked what colour that was? her cousin, after feeling for some time, answered, that it was pink colour. This answer was yet more astonishing, because it showed not only a power of distinguishing different colours, but different varieties of the same colour. The riband was not only discovered to be red, but the red was discovered to be of the pale kind called pink.

This unhappy lady, conscious of her own very

uncommon infirmities, was extremely unwilling to be seen by strangers, and, therefore, generally retired to her chamber, where none but those of the family were likely to come.

The same relation who, by the apron and riband, discovered the exquisite sensibility of her Touch, was soon afterwards convinced by an accident that her power of *Smelling* was acute and refined in the same astonishing degree. Being one day visiting the family, she went up to her cousin's chamber, and after making herself known, she intreated her to go down stairs, and sit among the rest of the family, assuring her that there was no other person present. To this she at length consented, and went down to the parlour-door; but the moment the door was opened, she turned back, and retired to her own chamber, much displeased, alleging that there were strangers in the room, and that an attempt

had been made to deceive her. It happened, indeed, that strangers were in the room, but they had come in whilst the lady was above stairs, so that she did not know they were there. When her cousin was satisfied of this particular, she was pacified ; and being afterwards asked, how she knew there were strangers in the room, she answered, by the Smell.

But though she could by this sense, in general, distinguish between persons with whom she was well acquainted, and strangers, yet she could not so easily recognize one of her acquaintances from another person without additional assistance. She generally distinguished her friends by feeling their hands, and when they came into her presence, they used to present their hands to her, as the means of making themselves known. The form and temperature of the hand produced in general, the differences which she remarked ;

but she sometimes used to span the wrist, and measure the fingers. A lady with whom she was very well acquainted, coming in one very hot day after having walked a mile, presented her hand as usual. She felt it longer than ordinary, and seemed to doubt whose it was, but after spanning the wrist and measuring the fingers, she said, "It is Mrs. M. but she is warmer to-day than ever I felt her before."

To amuse herself in the mournful and perpetual solitude and darkness to which her disorder had reduced her, she used to work a great deal at her needle, and it is remarkable that her needle-work was uncommonly neat and exact. She used also sometimes to write, and her writing was yet more extraordinary than her needle-work. It was executed with regularity and exactness, the character was very pretty, the lines were all even, and the letters placed at

equal distances from each other. But the most astonishing particular of all, with respect to her writing, was, that she could by some means discover when a letter had been, from mistake, omitted, and she would place it over that part of the word where it should have been inserted, with a caret under it. These circumstances were so very extraordinary, that it was long doubted whether she had not some faint remains both of hearing and sight, and many experiments were made to ascertain the matter; some of these she accidentally discovered, and the discovery always threw her into violent convulsions, so poignantly did she feel any suspicion of insincerity or deceit.

Her family were at last perfectly convinced from the experiments which they made, and several accidental circumstances proved that she was totally Deaf and Blind. Sir Hans Sloane, her physician, being still doubtful of the truth of

facts, which were scarce less than miraculous, was permitted to satisfy himself by such experiments and observations as he thought proper; the issue of which was, that he pronounced her to be absolutely Deaf and Blind.”*

* See Encyclopedia Britannica, Article *Blind*.

